



- DisplayPort 1.1 support
- Variants with resolutions up to 1920 x 1200 x 60 Hz as well as up to 4K30
- DisplayPort embedded audio support
- Data transmission via Cat X, fiber or fiber XV
- Compatible with alle Draco vario extenders series 474/48x
- Ready to be combined with Draco tera KVM matrix systems

The Draco vario DisplayPort KVM extender enables the transmission of high definition video and audio data over the cutting-edge DisplayPort interface. They are compatible with Draco tera KVM matrix switches and cross-compatible with the DVI and HDMI extender series for video and USB-HID extension.

Transmission of fully-digital video signals (including 3D video in full-HD) is supported in 4K resolutions up to 4096 x 2160 and 3840 x 2160. The DisplayPort extender supports all regular digital audio standards. This eliminates the need for additional audio modules, enabling playback of the audio signal through

monitors with integrated loudspeakers. Integration of optional upgrade modules for digital audio input and output is also possible. The DisplayPort extenders are available in single and redundant path variants.

## PRODUCT FEATURES

- The standard version allows operation of a remote workstation with a DisplayPort monitor and USB HID devices (such as a keyboard and mouse)
- All devices with redundant data link available
- Transmission of fully-digital video signals up to 4K (4096 x 2160) and Ultra HD
- The interface is 3D compatible, side-by-side and top-and-bottom 3D formats can be transmitted
- Simple keyboard commands (hot keys) for transmission of remotely connected monitors' DDC information; including permanent storage at the CPU Unit
- The audio format PCM can be transferred via the DisplayPort 1.1 interface (up to 96 kHz)
- Compatibility:
  - with all chassis and modules of the Draco vario extenders
  - with all major operating systems
  - with all IHSE Draco KVM matrix switches
  - with all IHSE Draco vario models and chassis and Draco compact extenders

## GRAPHICS



L483-BPHC



R483-BPHC



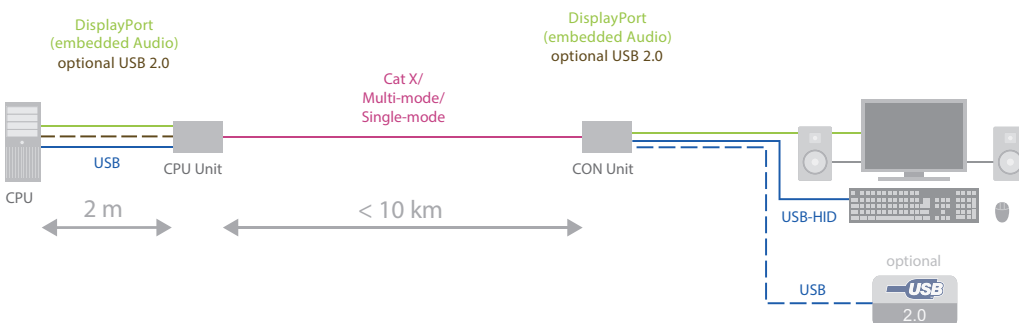
L483-BPHS/BPHX



R483-BPHS/BPHX

All devices also with redundant data link available

## FUNCTIONAL DIAGRAM



TECHNICAL DATA			
Input	DisplayPort 1.1		
Output	DisplayPort 1.1		
Audio (embedded)	Stereo Linear Pulse Code Modulation (LPCM), 2-channel PCM		
Maximum resolution	<table border="1"> <tr> <td>Variants with resolutions up to 1900 x 1200 x 60 Hz: 1920 x 1200 @ 60 Hz</td> <td>Variants with resolutions up to 4K30: 2560 x 2048 @ 60 Hz (24 bit) - Dual Link 3840 x 2160 @ 30 Hz (24 bit) - Ultra HD 4096 x 2160 @ 30 Hz (24 bit) - 4K</td> </tr> </table>	Variants with resolutions up to 1900 x 1200 x 60 Hz: 1920 x 1200 @ 60 Hz	Variants with resolutions up to 4K30: 2560 x 2048 @ 60 Hz (24 bit) - Dual Link 3840 x 2160 @ 30 Hz (24 bit) - Ultra HD 4096 x 2160 @ 30 Hz (24 bit) - 4K
Variants with resolutions up to 1900 x 1200 x 60 Hz: 1920 x 1200 @ 60 Hz	Variants with resolutions up to 4K30: 2560 x 2048 @ 60 Hz (24 bit) - Dual Link 3840 x 2160 @ 30 Hz (24 bit) - Ultra HD 4096 x 2160 @ 30 Hz (24 bit) - 4K		
Keyboard / mouse	USB-HID		
Interfaces with optional add-on modules	USB 2.0 (High-Speed or Full-Speed), analog audio with RS232 or RS422, digital audio, PS/2 Suitable add-on modules under the following link: <a href="https://www.ihse.com/add-on-modules/">https://www.ihse.com/add-on-modules/</a>		
Maximum transmission range for video and USB-HID signals (end-to-end connection)	<table border="1"> <tr> <td>Cat X: 140 m (459 ft) Single-Mode 9µm: 10,000 m (32,808 ft) Single-Mode 9µm XV: 5,000 m (16,404 ft)</td> <td>Multi-Mode 50µm (OM3): 1,000 m (3,280 ft) Multi-Mode 50µm: 400 m (1,312 ft)</td> </tr> </table>	Cat X: 140 m (459 ft) Single-Mode 9µm: 10,000 m (32,808 ft) Single-Mode 9µm XV: 5,000 m (16,404 ft)	Multi-Mode 50µm (OM3): 1,000 m (3,280 ft) Multi-Mode 50µm: 400 m (1,312 ft)
Cat X: 140 m (459 ft) Single-Mode 9µm: 10,000 m (32,808 ft) Single-Mode 9µm XV: 5,000 m (16,404 ft)	Multi-Mode 50µm (OM3): 1,000 m (3,280 ft) Multi-Mode 50µm: 400 m (1,312 ft)		
Power supply	Power supply via the used Draco vario chassis*		
Current draw	Max. 1.600 mA per extender module (power input via the used Draco vario chassis)**		
Dimensions	20 x 129 x 143 mm		
Weight	100 g		
Chassis / mounting accessories	Suitable Draco vario chassis and mounting accessories under the following link: <a href="https://www.ihse.com/chassis-accessoires/">https://www.ihse.com/chassis-accessoires/</a>		

\* For detailed information refer to the user manual.

#### NOTICE:

#### Transmission ranges for transparent USB when using add-on modules

When using L474/R474 add-on modules with transparent USB, the binding specifications stated in the data sheets of the add-on modules apply.

## ORDER NUMBERS

Draco vario DisplayPort 1.1 (Series 483) with resolutions up to 1920 x 1200 x 60 Hz	PART NO.
Draco vario CPU module DP 1.1, SL, USB HID, Cat X 1G	L483-BSHC
Draco vario CPU module DP 1.1, SL, USB HID, fiber 1G	L483-BSHS
Draco vario CPU module DP 1.1, SL, USB HID, Cat X 1G, red	L483-BSHCR
Draco vario CPU module DP 1.1, SL, USB HID, fiber 1G, red.	L483-BSHSR
Draco vario CON module DP 1.1, SL, USB HID, Cat X 1G	R483-BSHC
Draco vario CON module DP 1.1, SL, USB HID, fiber 1G	R483-BSHS
Draco vario CON module DP 1.1, SL, USB HID, Cat X 1G, red.	R483-BSHCR
Draco vario CON module DP 1.1, SL, USB HID, fiber 1G, red.	R483-BSHSR
Draco vario DisplayPort 1.1 (Series 483) with resolutions up to 4K30	PART NO.
Draco vario CPU module DP 1.1, DL or 4K30, USB HID, Cat X 1G	L483-BPHC
Draco vario CPU module DP 1.1, DL or 4K30, USB HID, fiber 1G	L483-BPHS
Draco vario CPU module DP 1.1, DL or 4K30, USB HID, fiber XV	L483-BPHX
Draco vario CPU module DP 1.1, DL or 4K30, USB HID, Cat X 1G, red.	L483-BPHCR
Draco vario CPU module DP 1.1, DL or 4K30, USB HID, fiber 1G, red.	L483-BPHSR
Draco vario CPU module DP 1.1, DL or 4K30, USB HID, fiber XV, red.	L483-BPHXR
Draco vario CON module DP 1.1, DL or 4K30, USB HID, Cat X 1G	R483-BPHC
Draco vario CON module DP 1.1, DL or 4K30, USB HID, fiber 1G	R483-BPHS
Draco vario CON module DP 1.1, DL or 4K30, USB HID, fiber XV	R483-BPHX
Draco vario CON module DP 1.1, DL or 4K30, USB HID, Cat X 1G, red.	R483-BPHCR
Draco vario CON module DP 1.1, DL or 4K30, USB HID, fiber 1G, red.	R483-BPHSR
Draco vario CON module DP 1.1, DL or 4K30, USB HID, fiber XV, red.	R483-BPHXR

### GENERAL ADVANTAGES OF DRACO KVM EXTENDERS

In many areas and industries computers have to be removed from working environments to enable greater workflow efficiency. Extenders allow separating computers from the input and output devices like keyboard, mouse and monitors.

To avoid losses in quality you will need an extender that works like a booster – maintaining fidelity and clarity of the signals and the video. This task can be realized by the use of regular Cat X network cables. For mission critical applications it is also possible to apply optical fiber cables.

### WHY DOES IT MAKE SENSE TO REMOTELY LOCATE A CPU?

- Protection against dust, moisture and vibrations
- Prevention of theft and unauthorized CPU access
- Simplified maintenance, configuration and administration of multiple user computers at a central point
- Centralized installation of software updates (particularly simple in combination with a KVM switch)
- Air conditioning of CPUs increases life cycles and ensures constant performance
- Pleasant working environment by enhancing space and reducing noise and heat pollution caused by powerful computers
- Reduction of energy consumption